1. An electric submersible motor comprising:

a motor casing defining a motor interior; and

one or more optic fibers disposed in the motor interior for transmitting optical signals, wherein at least one of the one or more optic fibers is connectable to one or more optic fibers running to a surface control unit and to sensors and/or other equipment positioned in a well and adapted for the receipt and/or transmission of optical signals.

2. The electric submersible motor of claim 1, wherein at least one of the one or more optic fibers disposed in the motor interior terminates in the motor interior and is operably associated with a parameter sensor disposed in the motor interior, wherein a signal representative of a parameter sensed by the parameter sensor is transmitted on the at least one optic fiber.

3. The submersible motor of claim 1 wherein at least one of the one or more optic fibers transmits a signal representative of a parameter sensed in the well by a parameter sensor located below the electric submersible motor.

4. The submersible motor of claim 1 further comprising:

a stator disposed in the motor interior;

a shaft disposed in a central passageway defined by the stator; and

a rotor disposed about the shaft.

5. The submersible motor of claim 4, the stator defining a notch in an outer surface thereof, the one or more optic fibers being positioned in the notch.

6. The submersible motor of claim 5, further comprising an outer covering disposed about the one or more optic fibers.

7. A system for providing transmission of optical signals through a wellbore drilled through the surface of the earth, the system comprising:

a cable assembly running into the wellbore from the surface, the cable assembly comprising electrical conductors and one or more optic fibers;

an electric submersible motor, the cable assembly being connectable to the submersible motor, the submersible motor comprising a motor casing having one or more optic fibers disposed therein, wherein at least a portion of the one or more optic fibers disposed in the motor casing are connectable to the one or more optic fibers in the cable assembly at a first end thereof and are connectable at a second end thereof to downhole sensors and/or other equipment adapted to receive and/or transmit optical signals.

8. The system of claim 7 wherein the cable assembly comprises a cable assembly with a single outer armor surface enclosing the electrical conductors and the one or more optic fibers.

9. The system of claim 7 wherein the optic fibers are single mode fibers and are wrapped in bundles of one to eight fibers.

10. The system of claim 7 wherein the cable assembly includes a first armor surface enclosing the electrical conductors and a second armor surface enclosing the one or more optic fibers.

11. The system of claim 7 further comprising one or more sensors disposed in a motor interior and optically connected to the optic fibers disposed in the motor.

12. A system for providing transmission of optical signals through a wellbore, the system comprising:

a surface cable assembly comprising electrical conductors and at least one optic fiber running into the wellbore from the surface;

an electric submersible motor having a motor casing, and having one or more optic fibers disposed therein;

a motor lead cable assembly comprising electrical conductors and at least one optic fiber, the motor lead cable being connected to the electric submersible motor, wherein the electrical conductors in the power cable are connected to the electrical conductors in the motor lead cable; and

a splice for connecting the at least one optic fiber in the surface cable assembly to the at least one optic fiber in the motor lead cable assembly, wherein the at least one optic fiber in the motor casing is adapted to be connected to the at least one optic fiber in the motor lead cable assembly to transmit a signal representative of a sensed parameter.

13. The system of claim 12 wherein the motor lead cable assembly includes a single outer armor surface enclosing the electrical conductors and the at least one optic fiber.

14. The system of claim 12 wherein the splice for connecting the end of the surface cable assembly to the end of the motor lead cable assembly comprises:

first and second compression barrels, each having first and second ends, the first end having an opening for receiving an optic fiber;

first and second connector bodies threadedly connected to the first and second compression barrels, respectively; and

a first compression seal positioned between the first compression barrel and the first connector body, and a second compression seal positioned between the second compression barrel and the second connector body, wherein the at least one optic fiber from the surface cable assembly is inserted into the first compression barrel and the at least one optic fiber from the motor lead cable is inserted into the second compression barrel to form a butt splice when the first and second connector bodies are connected to each other and to the first and second compression barrels, respectively.

15. The system of claim 14, the first and second compression barrels each having a taper at the first end thereof, wherein the first and second compression seals each have a tapered end to mate with the taper at the first ends of the first and second compression barrels.

16. The system of claim 15, wherein the first and second connector bodies each have a passage defined therein, the passage in the first connector body being adapted to receive the at least one optic fiber from the surface cable assembly, and the groove in the second connector body being adapted to receive the at least one optic fiber from the motor lead cable, wherein ends of the at least one optic fiber from the surface cable assembly and from the motor lead cable assembly form a butt junction.

17. A fiber-optic splice unit comprising:

first and second compression barrels, each having a threaded end and an unthreaded end;

first and second connector bodies connected to each other, the first connector body being connected to the first compression barrel, the second connector body being connected to the second compression barrel; and

a first compression seal positioned between the first compression barrel and the first connector body and a second compression seal positioned between the second connector body and the second compression barrel, wherein a first optic fiber may be inserted through the first compression barrel, first compression seal, and first connector body, and wherein a second optic fiber may be inserted through the second compression barrel, second connector body, the first and second optic fibers defining a butt junction when the splice unit is fully assembled.

18. The splice unit of claim 17, the unthreaded end of the first and second compression barrels comprising tapered ends, wherein the first and second compression seals have tapered ends to mate with the tapered ends of the first and second compression barrels.

19. The splice unit of claim 18, wherein the first connector body is threaded to the first compression barrel, and the second connector body is threadedly connected to the second compression barrel, and wherein the tapered ends of the first and second compression seals are urged into contact with the first and second compression barrels when the first and second connector bodies are connected to the first and second compression barrels.

20. The splice unit of claim 17, the first and second connector bodies each having a central groove therein for holding the first and second optic fibers, respectively.

21. The splice unit of claim 17, wherein the second connector body is threadedly connected to the first connector body.

22. A method for providing transmission of optical signals through a wellbore comprising:

running a cable assembly into the wellbore from the surface, the cable assembly comprising both electrical conductors and at least one optic fiber;

connecting the cable assembly to an electric submersible motor, the electric submersible motor comprising a stator, a shaft and rotor, a motor casing and one or more optic fibers disposed in the motor casing; and

connecting the one or more optic fibers in the motor casing to a downhole sensor or other equipment requiring optical communication.

23. The method of claim 22, the cable assembly comprising a surface cable extending from the surface into the wellbore and a motor lead cable connected to the electric submersible motor, the method further comprising connecting the motor lead cable to the surface cable.

24. The method of claim 23, wherein the surface cable and motor lead cable are connected with a splice unit.

25. The method of claim 22, wherein the optic fibers in the motor casing are adapted to communicate signals to and from a parameter sensing unit.